# **REMARKS**

The enclosed is responsive to the Examiner's Office Action mailed on January 24, 2005. At the time the Examiner mailed the Office Action claims 1-33 were pending. By way of the present response the Applicant has: 1) added no claims; 2) amended claims 4, 15, 17-19; and 3) cancelled no claims. As such, claims 1-33 are now pending. The Applicant respectfully requests reconsideration of the present application and the allowance of all claims.

# Claim Rejections

## 35 U.S.C. § 112, first paragraph, Rejections

Applicants respectfully traverse the Examiner's belief that claims 23-33 violate 35 U.S.C. § 112, paragraph one. Applicants submit that claims 23-33 inherit the structural support of the specification due to 35 U.S.C. §112, paragraph 6, which states:

An element in a claim for a combination may be expressed as a means step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Hence, claims 23-33 inherit the structure represented in the specification. One or more apparatuses are identified in the specification for performing the methods of claims 23-33, or the equivalents thereof. Specifically, Applicants direct the Examiner to paragraph 0023, which states in part:

The present invention also relates to apparatus for performing the operations herein. This apparatus may be specially constructed for the required

purposes, or it may comprise a general purpose computer selectively activated or reconfigured by a computer program stored in the computer...

Further, paragraphs 0058 – 0064, in conjunction with Figure 5, describe a computer system that may be used to perform one or more of the functions described in claims 23-33. Therefore, with this example from the specification, applicants believe that claims 23-33 are supported by the specification and comply with 35 U.S.C. §112, first paragraph.

#### 35 U.S.C. § 103(a) Rejections

The Examiner rejected claims 1, 2, 9, 12, 13, 20, 23, 24 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Aingaran et al and Rao.

In regards to independent claim 23, the Examiner states that:

Aingaran, et al. does not expressly teach means for modeling the victim net using two  $\pi$ -type resistor-capacitor (RC) circuits, including means for determining a coupling between the victim net and aggressor. **Rao** teaches means for modeling the victim net using two  $\pi$ -type resistor-capacitor (RC) circuits, including means for determining a coupling between the victim net and aggressor...

(Office Action, page 11)

Applicants respectfully disagree that Rao discloses means for modeling the victim net using two  $\pi$ -type resistor-capacitor (RC) circuits, including means for determining a coupling between the victim net and aggressor. Although Rao discloses the use of two  $\pi$ -type RC circuits, Rao does not teach or suggest that the RC circuits are used for the modeling of a victim net. Further, Rao does not teach or suggest determining a coupling between a victim net and aggressor. In fact, Rao is silent on modeling of victim nets and aggressor nets.

In contrast, Rao discloses the use of two  $\pi$ -type RC circuits for delay analysis and step-response of a distributed RC line. The abstract of Rao states:

This paper reviews the step-response of the semi-infinite distributed RC line and focuses mainly on the step-response of a finite-length RC line with a capacitive load termination, which is the most common model for a wire inside the present day integrated CMOS chips.

Rao. Page 1, Col. 1, paragraph 1

#### Rao further states:

The simplest lumped approximation to the distributed RC line is to use a first-order  $\pi$  approximation... We also consider a second-order  $\pi$  approximation as shown in Figure 2(c), wherein the RC line is split into two halves, and each half is approximated by a first-order  $\pi$  approximation.

Rao, Page 5, Col. 1, lines 7-14

Therefore, Rao does not teach or suggest a means for modeling the victim net using two  $\pi$ -type resistor-capacitor (RC) circuits, including means for determining a coupling between the victim net and aggressor. Hence, Rao fails to disclose this limitation of claim 23.

Applicants respectfully submit that Aingaran also fails to disclose a means for modeling the victim net using two  $\pi$ -type resistor-capacitor (RC) circuits, including means for determining a coupling between the victim net and the aggressor. As such, the combined teachings of Aingaran and Rao fail to disclose each and every limitation of independent claim 23. Hence, Aingaran and Rao do not make claim 23 obvious under 35 U.S.C. §103(a).

Independent claims 1, 7, 12, 18 and 29 contain substantially the same limitations as discussed above in regards to independent claim 23. As such, Aingaran and Rao also fail to disclose each and every limitation of independent

claims 1, 7, 12, 18 and 29. Hence, the combination of Aingaran and Rao does not make independent claims 1 and 12 obvious under 35 U.S.C. §103(a).

The remaining dependent claims all depend on and include the limitations of independent claims 1, 7, 12, 18, 23 and 29 respectfully. Hence, the combination of Aingaran and Rao also fail to make the dependent claims obvious under 35 U.S.C. §103(a).

The Examiner rejected claims 3, 14 and 25 under 35 U.S.C. § 103(a) as being unpatentable over Aingaran et al, Rao and Huang. Huang does not overcome the deficiencies of Aingaran and Rao. Therefore, for the same reasons given above, the present invention as described in claims 3, 14 and 25 is not obvious in view of Aingaran, Rao and Huang.

The Examiner rejected claims 7, 18 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Aingaran et al, Rao, Heijningen et al and Alpert et al. Heijningen and Alpert do not overcome the deficiencies of Aingaran and Rao. Therefore, for the same reasons given above, the present invention as described in claims 7, 18 and 29 is not obvious in view of Aingaran, Rao, Heijningen and Alpert.

The Examiner rejected claims 11, 22 and 33 under 35 U.S.C. § 103(a) as being unpatentable over Aingaran et al, Rao and Alpert et al. Alpert does not overcome the deficiencies of Aingaran and Rao. Therefore, for the same reasons given above, the present invention as described in claims 11, 22 and 33 is not obvious in view of Aingaran, Rao and Alpert.

# **Allowable Subject Matter**

Applicants thank the Examiner for allowance of claims 6, 8, 10 and 21.

Claims 17 -19 have been amended per the Examiner's suggestion.

Claim 4 has been rewritten to depend on claim 6. Claim 15 has been amended to depend on claim 17. As such, applicants believe that claims 4, 5, 15 -19 are in condition of allowance.

In light of the comments above, the Applicant respectfully requests the allowance of all claims.

## **Comments**

If there are any additional charges, please charge Deposit Account No. 02-2666. If a telephone interview would in any way expedite the prosecution of this application, the Examiner is invited to contact Michael J. Mallie at (408) 720-8300.

Respectfully submitted,

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Dated: 5/24/05

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